

Amendments to the Claims

1-55. (cancelled)

56. (previously presented) An apparatus for communicating, comprising:

at least one first switch module that receives at least a first oscillating signal and a first bias signal, wherein said first oscillating signal causes said at least one first switch module to gate said first bias signal and thereby generate a first periodic signal having a first plurality of harmonics;

at least one second switch module that receives at least a second oscillating signal and a second bias signal, wherein said second oscillating signal causes said at least one second switch module to gate said second bias signal and thereby generate a second periodic signal having a second plurality of harmonics;

wherein said first periodic signal and said second periodic signal are combined to thereby generate a combined periodic signal having a combined plurality of harmonics; and

at least one filter that receives said combined periodic signal, wherein said at least one filter isolates at least one harmonic of said combined plurality of harmonics.

57. (previously presented) An apparatus for communicating, comprising:

at least one first switch module that receives at least a first oscillating signal and a first bias signal, wherein said first oscillating signal causes said at least one first switch module to gate said first bias signal and thereby generate a first periodic signal having a first plurality of harmonics;

at least one second switch module that receives at least a second oscillating signal and a second bias signal, wherein said second oscillating signal causes said at least one second switch module to gate said second bias signal and thereby generate a second periodic signal having a second plurality of harmonics;

wherein said first periodic signal and said second periodic signal are combined to thereby generate a combined periodic signal having a combined plurality of harmonics; and

at least one filter that receives said combined periodic signal and removes any unwanted harmonics from said combined periodic signal to produce a filtered periodic signal having a third plurality of harmonics.

58. (Currently amended) A transmitter, comprising:

an antenna;

a first switch that gates a first reference signal according to a first control signal to generate a first harmonically rich signal; and

a second switch that gates a second reference signal according to a second control signal to generate a second harmonically rich signal;

wherein said first and second harmonically rich signals are combined to form a combined harmonically rich signal, and

wherein the antenna transmits the combined harmonically rich signal.

59. (previously presented) The transmitter of claim 58, further comprising:

at least one filter to isolate at least one harmonic contained in said combined harmonically rich signal.

60. (Currently amended) A method of transmitting, comprising:

gating a first reference signal according to a first control signal to generate a first harmonically rich signal; ~~and~~

gating a second reference signal according to a second control signal to generate a second harmonically rich signal;

wherein said first and second harmonically rich signals are combined to form a combined harmonically rich signal; and

transmitting the combined harmonically rich signal using an antenna.

61. (previously presented) The method of claim 60, further comprising:

filtering from said combined harmonically rich signal any undesired harmonics.

62-89. (cancelled)

90. (Previously presented) The apparatus of claim 56, wherein said first oscillating signal represents an I information signal, and said second oscillating signal represents a Q information signal.

91. (Previously presented) The apparatus of claim 56, further comprising a summer that sums said first and second periodic signals.

92. (Previously presented) The apparatus of claim 57, wherein said first oscillating signal represents an I information signal, and said second oscillating signal represents a Q information signal.

93. (Previously presented) The apparatus of claim 57, further comprising a summer that sums said first and second periodic signals.

94. (Currently amended) A transmitter, comprising:
a first switch that gates a first reference signal according to a first control signal
to generate a first harmonically rich signal; and
a second switch that gates a second reference signal according to a second control
signal to generate a second harmonically rich signal;
wherein said first and second harmonically rich signals are combined to form a
combined harmonically rich signal; and

~~The transmitter of claim 58,~~ wherein said first control signal represents an I information signal, and said second control signal represents a Q information signal.

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95. (Previously presented) The apparatus of claim 58, further comprising a summer that sums said first and second harmonically rich signals.

96. (Currently amended) A method of transmitting, comprising:
gating a first reference signal according to a first control signal to generate a first
harmonically rich signal; and
gating a second reference signal according to a second control signal to generate
a second harmonically rich signal;
wherein said first and second harmonically rich signals are combined to form a
combined harmonically rich signal, and

~~The method of claim 60,~~ wherein said first control signal represents an I information signal, and said second control signal represents a Q information signal.

97. (Previously presented) The method of claim 60, wherein said first and second harmonically rich signals are combined using a summer.